



CD-33/CD-33S Controlled Disc Steam Traps

Adapts to outdoors

Optional rain guard insulating cap available to prevent excessive radiant heat loss in outside applications.

Durable

Hardened stainless steel integral seat and disc for long operating life.

Extended life

Three discharge port design offers stable disc operation to extend trap operating life.

Connections

Available in 1/2", 3/4", 1" screwed.

Corrosion resistance

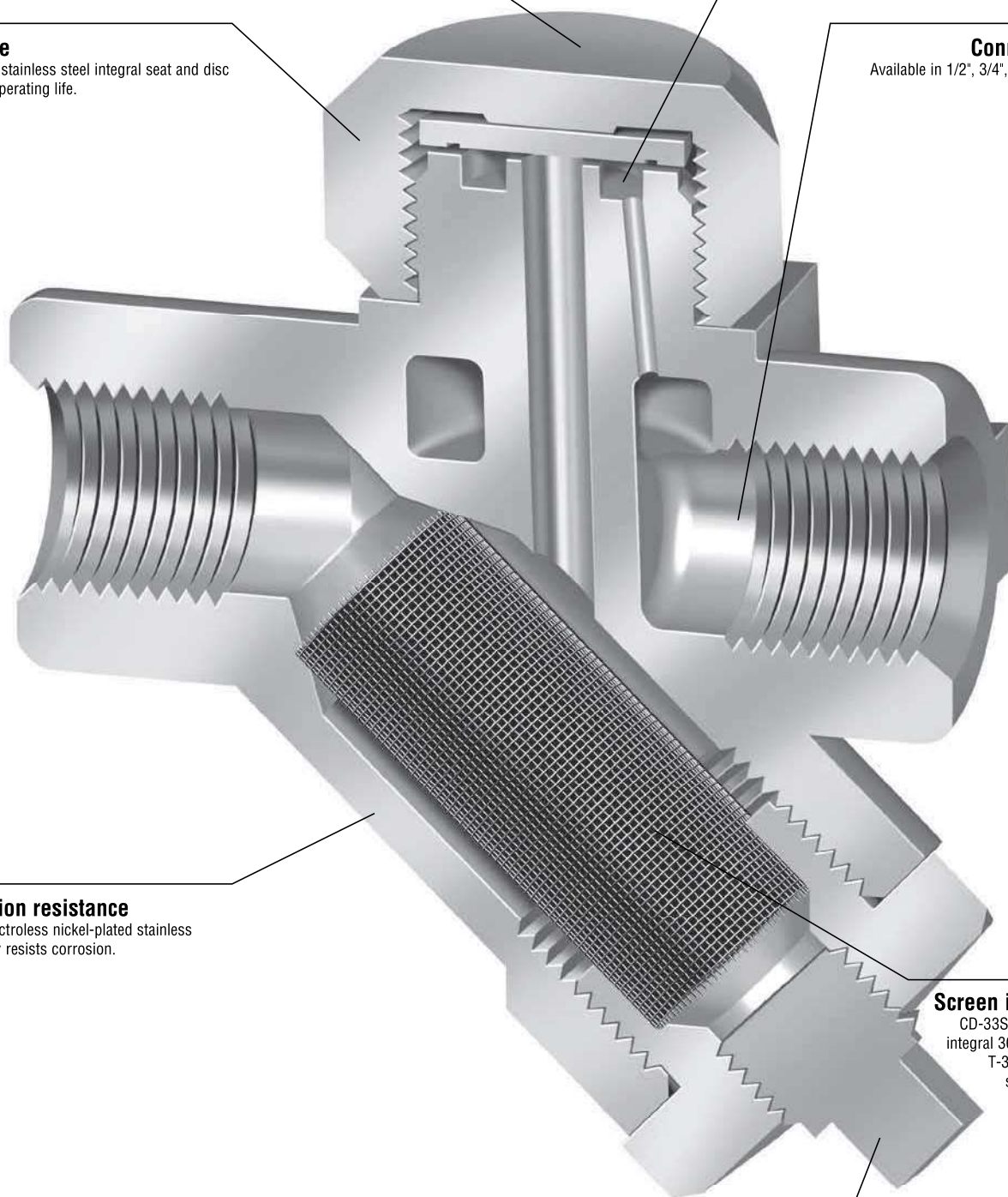
Tough electroless nickel-plated stainless steel body resists corrosion.

Screen included

CD-33S includes an integral 30 x 30 mesh T-304 stainless steel screen.

Blowdown choice

Blowdown plug standard. Blowdown valve available as an option.



CD-33/CD-33S Controlled Disc Steam Traps

The Armstrong CD-33 is a controlled disc style trap designed to control the trap's cycle rate. By reducing the cycle rate, the Armstrong CD-33 will have a longer service life than typical disc traps. This enhanced performance will ensure that maintenance time is minimized and steam costs are greatly reduced.

The CD-33 is designed with three discharge ports, which offer stable disc operation to extend trap operating life. The capacities of the Armstrong CD-33 have been engineered specifically for the following applications: large steam main drips, process equipment, and HVAC heating equipment on constant pressure. The CD-33L (low capacity) trap is designed for the low capacity applications of steam main drips and steam tracing lines. By ensuring that the capacities are designed to suit the application, and are not oversized, the CD-33 Series will last longer than other disc traps with excessive capacity ratings.

Advantages

- Three discharge port design
- Minimum wear with controlled cycling
- Freeze-resistant
- Hardened seat and disc

Specification

Steam trap shall be stainless steel controlled disc type, integral seat design with hardened disc and seating surfaces, and electroless nickel plated finish. When required, trap shall be supplied with an integral Y strainer, integral blowdown valve or rain guard insulating cap. Maximum allowable pressure (vessel design) shall be 63 bar @ 400°C. Maximum operating pressure shall be 42 bar @ 400°C.

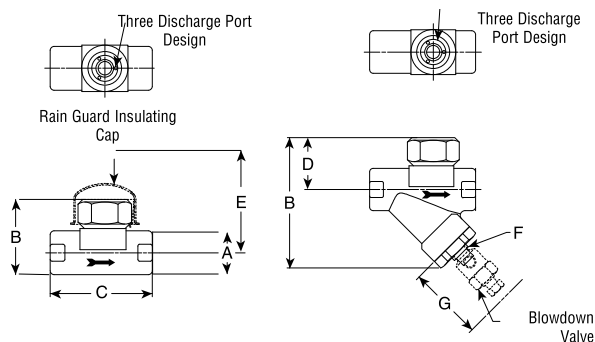




CD-33 Series Controlled Disc Steam Traps

All Stainless Steel

For Pressures to 41 bar...Capacities to 1 130 kg/h



CD-33/CD-33L Series

CD-33S/CD-33SL Series
with Integral Strainer

The Armstrong CD-33 is a controlled disc style trap designed to control the trap's cycle rate. By reducing the cycle rate, the Armstrong CD-33 will have a longer service life than typical disc traps. This enhanced performance will ensure that maintenance time is minimized and steam costs are greatly reduced.

The CD-33 is designed with three discharge ports, which offer stable disc operation to extend trap operating life. The capacities of the Armstrong CD-33 have been engineered specifically for the following applications: large steam main drips, process equipment, and HVAC heating equipment on constant pressure. The CD-33L (low capacity 1/2" and 3/4" only) trap is designed for the low capacity applications of steam main drips and steam tracing lines. By ensuring that the capacities are designed to suit the application, and are not oversized, the CD-33 Series will last longer than other disc traps with excessive capacity ratings.

Connections

Screwed BSPT and NPT

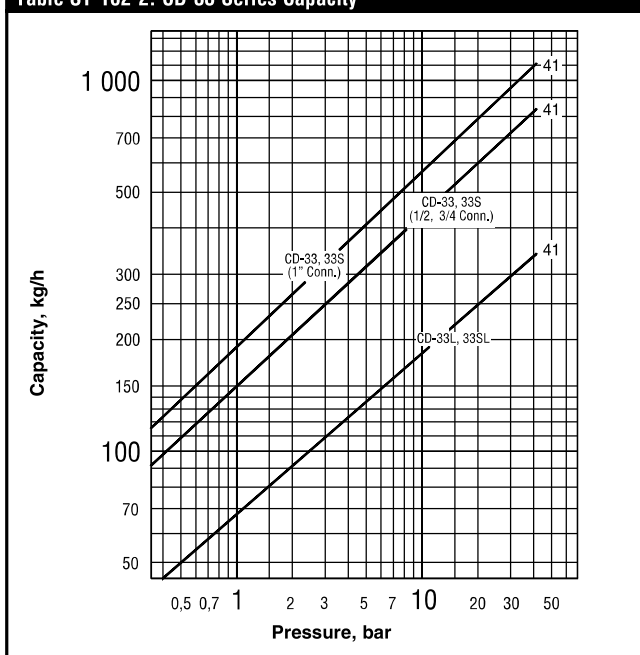
Specification

Steam trap shall be stainless steel controlled disc type, integral seat design with hardened disc and seating surfaces, and electroless nickel plated finish. When required, trap shall be supplied with an integral Y strainer, integral blowdown valve or rain guard insulating cap. Maximum allowable pressure (vessel design) shall be 63 bar @ 400°C. Maximum operating pressure shall be 41 bar @ 252°C.

Table ST-162-1. List of Materials

Name of Part	Material
Body	ASTM A743 Gr. CA40
Cap	ASTM A743 Gr. CA40
Disc	ASTM A276 Gr. 420
Strainer Screen	30 x 30 Mesh T-304 Stainless Steel
Screen Retainer	ASTM A743 Gr. CA40
Blowdown Plug (CD-33S only)	Carbon Steel
Options	
Blowdown Valve	Stainless Steel
Rain Guard Insulating Cap (1/2", 3/4" Sizes Only)	Stainless Steel

Table ST-162-2. CD-33 Series Capacity



Note: CD traps can operate with minimum of 0,15 bar inlet pressure and a maximum of 80% back pressure. However, for best results, inlet pressure should not drop below 0,70 bar and back pressure should not exceed 50% of inlet pressure.

Table ST-162-3. CD-33 Series Trap (dimensions in mm)

Model No.	CD-33		CD-33S (with strainer)		CD-33L (low capacity)	CD-33SL (with strainer) (low capacity)
Pipe Connections	15 – 20	25	15 – 20	25	10 – 15 – 20	15 – 20
«A» Body Diameter	37	44	37	44	37	37
«B» Height	63	79	108	121	63	108
«C» Face-to-Face (screwed)	84	100	90	105	84	90
«D» C to Top of Cap	44	57	44	57	44	44
«E» Withdrawal Distance Rain Guard Insulating Cap	—	—	76	76	—	76
«F» Blowdown Connection Size	—	—	1/4" NPT	1/4" NPT	—	1/4" NPT
«G» Withdrawal Distance Blowdown Valve	—	—	89	89	—	89
Weight in kg	0,64	1,1	1,0	1,5	0,64	1,0
Maximum Allowable Pressure	63 bar @ 400°C					
Minimum Operating Pressure	0,24 bar					
Maximum Operating Pressure	41 bar @ 252°C					

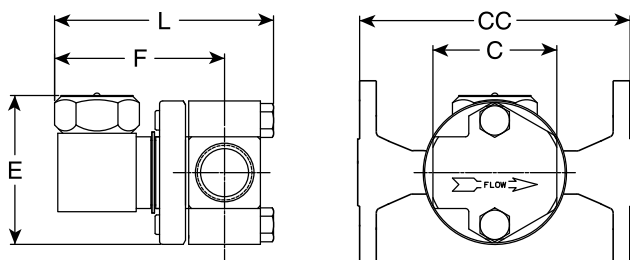
All models comply with the article 3.3 of the PED (97/23/EC).

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

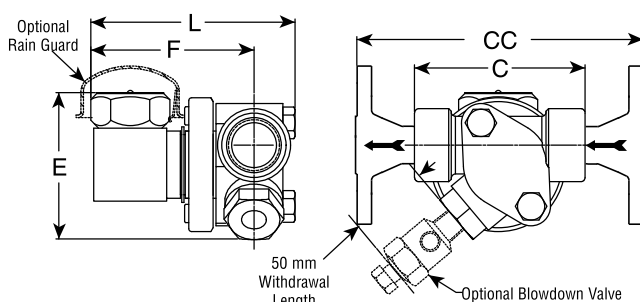
CD-3300 Controlled Disc Steam Trap

All Stainless with 360° Connector

For Pressures to 31 bar...Capacities to 360 kg/h



CD-3300 with Standard Connector



CD-3300 with IS-2 Connector with Integral Strainer

The Armstrong CD-3300 is a three discharge port design, which provides stable disc operation to extend operating life.

The CD-3300 is piped in-line by a 360° universal connector which allows you to install the trap in virtually any piping configuration. Armstrong's unique standard connector or its IS-2 connector with integral strainer makes the CD-3300 easy to install, easy to renew. You save on labor time and cost because the connector simplifies piping and remains in-line.

Materials

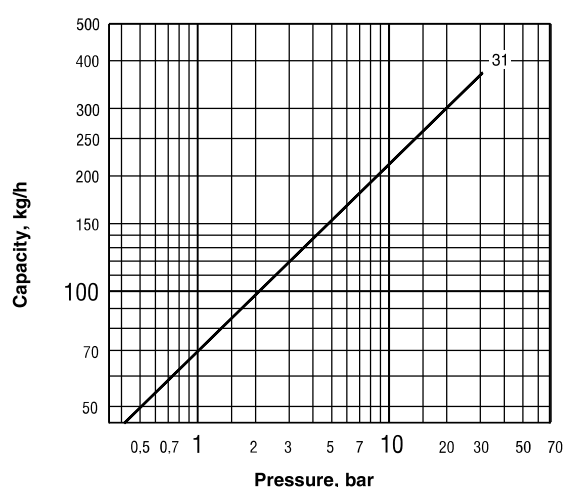
Trap cap:	ASTM A743 CA40
Trap disc:	ASTM A276 Gr.420
Trap body:	ASTM A276 Gr.420
Standard connector:	Stainless steel – 304
IS-2 connector with integral strainer:	ASTM A351 Gr.CF8 20 x 20 mesh 304 SS Screen

Connections

Screwed BSPT and NPT
Socketweld
Flanged DIN or ANSI (welded)



Table ST-163-1. Model CD-3300 Capacity



Note: CD traps can operate with minimum of 0,15 bar inlet pressure and a maximum of 80% back pressure. However, for best results, inlet pressure should not drop below 0,70 bar and back pressure should not exceed 50% of inlet pressure.

Options

Rain guard insulating cap
Blowdown valve – IS-2 connector only

Table ST-163-2. Model CD-3300 Trap (dimensions in mm)

Model No.	CD-3300	
	Standard Connector	IS-2 Connector w/Integral Strainer
Pipe Connections	15 – 20 – 25	15 – 20 25
"C" Face-to-Face (screwed & SW)	60 – 60 – N/A	89 102
"CC" Face-to-Face (flanged PN40*)	150 – 150 – 160	150 160
"L" Overall Length	106	106 106
"H" Overall Height	76	76 89
"F" $\varnothing$ to Body End	86	86 86
Blowdown Connection Size	—	1/4" NPT 1/4" NPT
Weight in kg (screwed)	1,6	1,8 2,0
Weight in kg (flanged PN40*)	3,3 – 3,9 – 4,4	3,5 – 4,1 4,8
Maximum Allowable Pressure†	50 bar @ 400°C	
Maximum Operating Pressure	31 bar @ 236°C	

* Standard flanges are in carbon steel, stainless steel flanges are optional. Other flange sizes, ratings and face-to-face dimensions are available on request.

All sizes comply with the article 3.3 of the PED (97/23/EC).

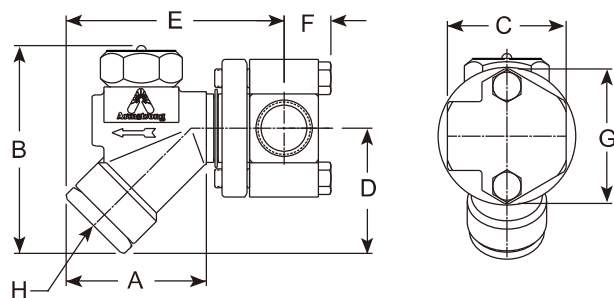
† May be derated depending on flange rating and type.

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.



CD-3300S Series Controlled Disc Steam Traps

All Stainless Steel with 360 °C Connector
For Pressures to 31 bar...Capacities to 363 kg/h



The Armstrong CD-3300S is a three discharge port design, which provides stable disc operation to extend operating life.

The CD-3300S is piped in-line by a 360° universal connector, which allows you to install the trap in virtually any piping configuration. Armstrong's unique standard connector makes the CD-3300S easy to install, easy to replace. You save on labor time and cost because the connector simplifies piping and remains in-line.

CD-3300S is designed with integral strainer, do not use connector with integral strainer to install the trap but standard connector.

Materials

Trap Body	ASTM A743 Gr. CA40
Trap Cap	ASTM A743 Gr. CA40
Disc	ASTM A276 Gr. 420
Screen Retainer	ASTM A743 Gr. CA40
Blowdown Plug	Carbon steel

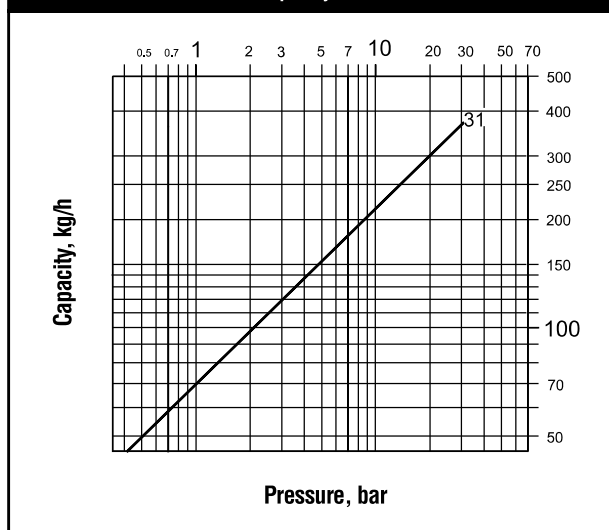
How to Order

- Model
- Connector: Specify size and connection NPT/BSPT/SW (Flanged Consult Factory)

Table ST-164-1. CD-3300S Disc Trap with standard connector

Model	CD-3300S with standard connector	
Pipe Size	1/2"	3/4"
«A»	70	
«B»	105	
«C»	60	
«D»	64	
«E»	111	
«F»	20	
«G»	70	
«H» (Blowdown connector)	1/2" NPT	
Weight (kg)	1,9	
Maximum Operating Pressure	31 bar @ 236 °C	
Maximum Allowable pressure (Vessel Design)	50 bar @ 400 °C	

Table ST-164-2. CD-3300S Capacity



All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

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Notes



CD-72S/SL Series Disc Trap

Carbon Steel

For pressure to 70 bar... capacities to 1 769 kg/hr

The Armstrong CD-72S/SL is a disc style trap designed to control the trap's cycle rate. By reducing the cycle rate, the Armstrong CD-72S/SL will have a longer service life than typical disc traps. This enhanced performance will ensure that maintenance time is minimized and steam costs are greatly reduced.

The CD-72S/SL is designed with three discharge ports, which offer stable disc operation to extend trap operating life. The capacities of the Armstrong CD-72S/SL has been engineered specifically for the following applications: large steam main drips, process equipment, and HVAC heating equipment on constant pressure.

Advantages

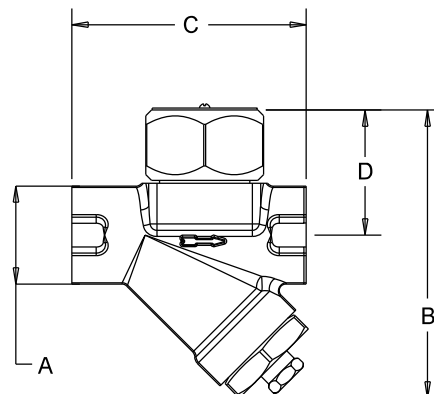
- Three discharge port design
- Minimum wear with controlled cycling
- Freeze-resistant
- Hardened seat
- Weldable

Connection

Screwed BSPT and NPT

Socketwelded

Flanged DIN or ANSI (welded), consult factory for dimensions and weights.



Model CD-72S Forged

Table ST-166-1. CD-72S/SL List of Materials

Name of Part	Material
Body	Dual certified ASTM A105N / A350 LF2 Cl.1
Cap	
Seat	17-4 PH
Disc	ASTM A276 Gr. 420
Strainer Screen	30 x 30 mesh T304 stainless steel
Screen Retainer	A105N / LF2
Blowdown Plug (1/4 NPT)	A350 LF2 Cl.1

Table ST-166-2. CD-72S Dimensions and Weights

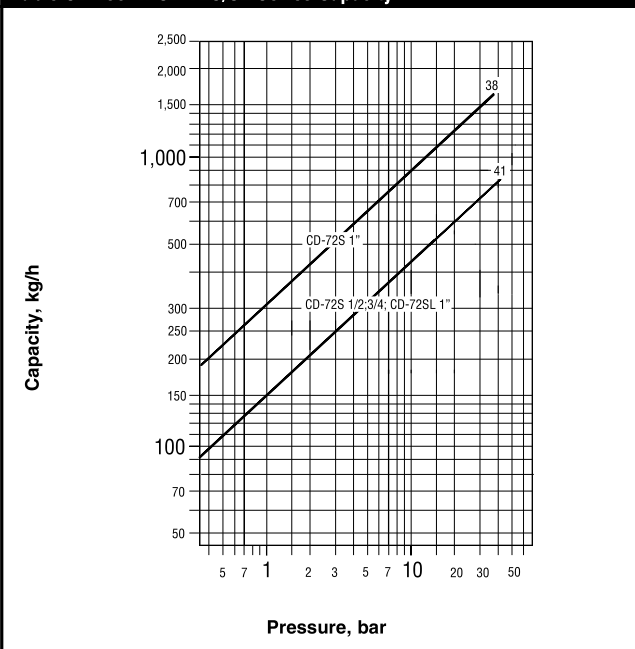
Model No.	CD-72S
	mm
	15 – 20 – 25
«A»	39 – 39 – 48
«B» Height	112 – 112 – 126
«C» Length	90 – 90 – 112
«D» $\varnothing$ to top of cap	49 – 49 – 59
«CC» Face-to-Face (flanged PN40)	150 - 150 - 170
Weight, kg	1,0 – 1,0 – 7,5
Maximum Allowable Pressure (vessel design)†	70 bar @ 399°C
Minimum Operating Pressure	0,24 bar
Maximum Operating Pressure	41 bar @ 252°C

Table ST-166-3. CD-72SL Dimensions and Weights

Model No.	CD-72SL
	mm
	25
«A»	48
«B» Height	120
«C» Length with flanged PN40	150
«D» $\varnothing$ to top of cap	55
Weight, kg	5,0
Maximum Allowable Pressure (vessel design)†	70 bar @ 399°C
Minimum Operating Pressure	0,24 bar
Maximum Operating Pressure	41 bar @ 252°C

† May be derated depending on flange rating and type. Flange size, ratings and face-to-face dimensions are available on request.

Table ST-166-4. CD-72S/SL Series Capacity



All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

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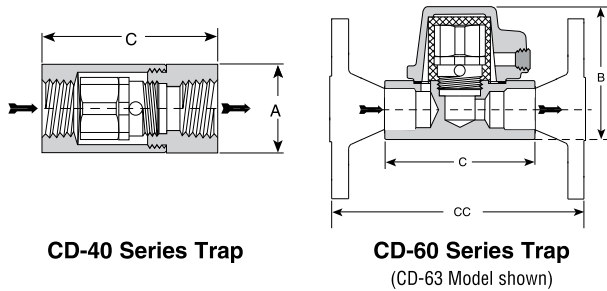
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CD-40 and CD-60 Series Controlled Disc Steam Traps

Carbon Steel

For Pressures to 41 bar...Capacities to 1 300 kg/h



Steam Trapping and
Steam Tracing Equipment

Description

Armstrong CD-40 and CD-60 Series controlled disc traps contain a replaceable capsule, making it possible to renew a worn trap by simply replacing the capsule. A heating chamber in the shell ensures consistent operation. This steam jacket provides a relatively constant temperature in the control chamber regardless of ambient conditions. Cycling rate is controlled and does not increase when the trap is exposed to cold winds, rain or snow. CD-40 Series traps are also available with optional integral 0,045" perforated stainless steel strainer screens. CD-60 Series traps contain integral strainers with ratios of open area to inside area of pipe that equal or exceed those of most separate "Y" type strainers.

Maximum Operating Conditions

Maximum allowable pressure (vessel design)†:

Model CD-40	41 bar @ 260°C
Model CD-60	41 bar @ 399°C

Maximum operating pressure:	41 bar at saturated steam temp.
Minimum operating pressure:	0,7 bar
Maximum back pressure:	50% of inlet pressure (recommended)

Connections

Model CD-40 and CD-60	Screwed BSPT and NPT
Model CD-60	Socketweld
Model CD-60	Flanged DIN or ANSI (welded)

Materials Model CD-40

Body:	Carbon steel – C-1215
Control chamber:	Hardened stainless steel
Disc:	Hardened stainless steel
Capsule body:	Hardened stainless steel
Strainer screen (option):	Stainless steel

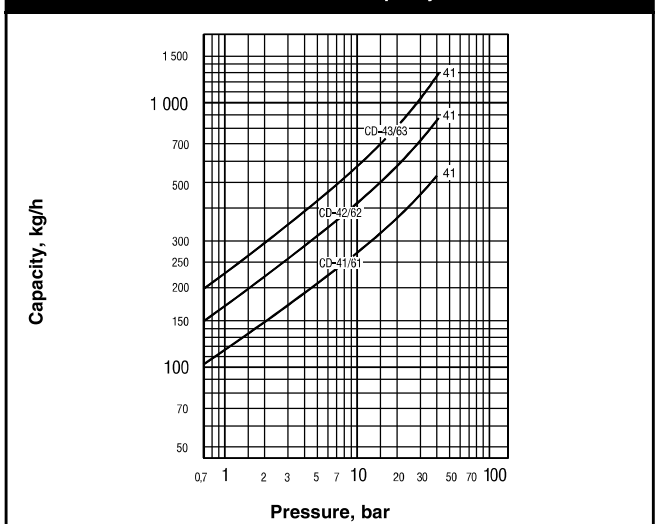
Materials Model CD-60

Body:	ASTM A216 WCB
Cap:	ASTM A216 WCB or ASTM A105
Control chamber:	Hardened stainless steel
Disc:	Hardened stainless steel
Capsule body:	Hardened stainless steel
Strainer screen:	20 x 20 mesh stainless steel

Option

CD-40 Series integral strainer screen (0,045" perforated stainless steel)

Table ST-167-1. CD-40 & CD-60 Series Capacity



Capacities given are continuous discharge capacities in kilograms of hot condensate per hour at pressure differential indicated with condensate temperatures approximately 14°C below steam temperatures.

Note: CD traps can operate with minimum of 0,15 bar inlet pressure and a maximum of 80% back pressure. However, for best results, inlet pressure should not drop below 0,70 bar and back pressure should not exceed 50% of inlet pressure.

Specification

Controlled disc steam trap, type ... in carbon steel. CD-60 includes integral strainer. Maximum allowable pressure 41 bar.

How to Order

Specify:

- Model number
- Size and type of pipe connection
- Any options required

Table ST-167-1. CD-40 and CD-60 Series Trap (dimensions in mm)

Model No.	CD-41*		CD-42*	CD-43*	CD-61		CD-62	CD-63
Pipe Connections	3/8"	1/2"	3/4"	1"	10	15	20	25
"A" Body Outside Diameter	31,7	31,7	41,3	60,3	—	—	—	—
"B" Height	—	—	—	—	66,7	66,7	87,3	108,0
"B" Face-to-Face (screwed & SW)	76,2	86,5	100,0	117,5	88,9	88,9	117,0	122,0
"C" Face-to-Face (flanged PN40**)	—	—	—	—	—	150	170	180
Weight in kg (screwed & SW)	0,3		0,8	1,9	1,2	1,1	2,2	3,1
Weight in kg (flanged PN40**)	—		—	—	—	2,6	4,3	5,7

* Optional integral strainer available.

** Other flange sizes, ratings and face-to-face dimensions are available on request.

All models comply with the article 3.3 of the PED (97/23/EC).

† May be derated depending on flange rating and type.

All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.

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